



Illinois Department of Transportation

Memorandum

To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: February 29, 2016

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement March 1, 2016 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Monday, March 14, 2016**. Applicants will not be accepted after that time and date.

NOTE: A copy of each applicant's ACTIVE Illinois Professional Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Denise Hamilton or Jennifer Sunderland at 217/782-5594.

CE IV

Intelligent Transportation Systems Engineer
Region 5/District 8/Operations
Highways
Collinsville

Attachments
40505

Technical Applications (PM 1080) **must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) by **Monday, March 14, 2016**, 4:30 p.m. Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews. **NOTE: A copy of each applicant's ACTIVE Illinois Professional Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.**



Illinois Department of Transportation

An Equal Opportunity Employer

Position Summary Sheet

Classification:	Civil Engineer IV	Salary Range:	\$5,800 - \$9,230
Position Title:	Intelligent Transportation Systems Engineer	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW114-23-58-501-40-01	IPR#:	40505

Office/Central Bureau/District/Work Address:

Highways / IDOT / District 8 / Bureau of Operations / 1102 Eastport Plaza Drive, Collinsville, IL

Description Of Duties:

This position is accountable for the safety and efficient operation of district Intelligent Transportation System (ITS) components. Participation in the Federal Administration (FHWA) ITS training program and other training programs provides the advanced level of expertise necessary to ensure existing and proposed ITS components are coordinated and utilized to the maximum benefit of the traveling public in all counties of the district.

Special Qualifications:

The following criteria is required:

- Current Illinois Professional Engineer license

The following criteria is desired:

- Four to six years' experience in civil engineering including four years of supervisory responsibility of which three years should be in the design and/or construction of highways
- Strong oral and written communication skills

Shift/Remarks:

Typically 8:00 am – 4:30 pm / Monday - Friday

***THIS POSITION IS COVERED UNDER THE REVOLVING DOOR PROHIBITION (RDP) POLICY.**

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	July 2015	POSITION:	Intelligent Transportation Systems Engineer
APPROVED BY:	<u>Joseph Monroe</u>	DIVISION:	Highways/District 8/Bureau of Operations
CODE:	PW114-23-58-501-40-01	REPORTS TO:	Traffic Operations Engineer

POSITION PURPOSE

This position is accountable for the efficient operation of all the district's Intelligent Transportation System (ITS) components. Participation in the Federal Highway Administration (FHWA) ITS training program and other training programs provides the advanced level of expertise necessary to ensure that existing and proposed ITS components are coordinated and utilized to the maximum benefit of the traveling public in all counties of the district.

DIMENSIONS:

Subordinate Personnel:	1 F/T, 8 P/T
Geographical Area	11 counties

Existing ITS Components

Highway Advisory Radio (HAR)	7 transmitters in IL; 2 in Missouri
Dynamic Message Signs (DMS)	9 permanent truss-mounted
Vehicle Detector Stations (VVDC)	100
Closed Circuit Video Cameras (CCVC)	51
Weather Information Systems	5

Future ITS Components

DMS	10
VVDC	100
CCVC	20
Weather Information Systems	1
Future ITS Components Value:	\$1.5-\$2 million annually
Project Reviews:	15
Training:	± 3 courses
Subordinate Personnel	2 Direct

NATURE AND SCOPE:

This position reports to the Traffic Operations Engineer, as do the Emergency Patrol Supervisor, the Signing and Striping Supervisor, and the Traffic Control Supervisor. Reporting to this position are the Traffic Management Center Engineer and the Communications Technology Specialist.

The FHWA has categorized ITS activities in the following nine components: Traffic Signal Control, Freeway Management, Transit Management, Incident Management, Electronic Fare Payment, Electronic Toll Collection, Railroad Grade Crossings, Emergency Management Services, and Regional Multi-modal Traveler Information. The incumbent is responsible for ensuring that each ITS component is implemented in a safe and effective manner that compliments the existing ITS components within the district. The incumbent ensures proper coordination of the ITS throughout the various counties within the district.

He/she also ensures that all ITS equipment is functioning efficiently and maintenance of ITS equipment is performed expediently as funds allow. The incumbent ensures compliance with the National Architecture for ITS, as developed by the FHWA, Manual on Uniform Traffic Control Devices (MUTCD), Federal Railroad Administration (FRA), Illinois Commerce Commission regulations, Federal Communications Commission (FCC), Illinois Department of Transportation Bureau of Operations Traffic Policies and Procedures Manual, and federal/state/local government regulations. S/He reviews the district highway improvement program to ensure that ITS components are incorporated and protected in various projects. S/He also makes recommendations for stand-alone ITS projects as needs and funding dictate. Modifications and adjustments to this architecture must be made, as changes in regional needs, available technology, and funding require.

Typical problems include participating in complex on-going training, maintaining the latest ITS technology, providing liaison with the Missouri Department of Transportation (MoDOT), East-West Gateway Coordinating Council (EWGCC), Bi-State Development Agency (BSDA), the IDOT ITS Coordinator, the Central Bureau of Operations, various impacted district bureaus, and local governments, and serving as the district's ITS expert. The major challenge of this position is working across district, bureau and agency boundaries to coordinate and manage the district's ITS efforts while keeping a regional viewpoint, taking advantage of existing facilities and keeping abreast of constantly evolving technology. Another challenge of this position is to maintain complex system standards within constraints of sound engineering judgement while remaining within the limitations of plans and specifications.

The incumbent is responsible for working directly with the Traffic Operation Engineer and the Services and Development Technician to ensure the safe and efficient operation of all the district's ITS components. S/He provides expertise needed to operate these complex systems by developing, reviewing and updating all plans for all ITS projects, and contributes to design specifications for all ITS components. The ITS components must be coordinated, in a regional outlook, with other agencies. S/He also reviews ITS consultant's work. The incumbent participates in the FHWA ITS training program to evaluate the latest technology, revise specifications, and research needed improvements.

Responsibilities are accomplished through the following staff:

Traffic Management Center Engineer who, with a staff, ensures the proper usage of all Intelligent Transportation System equipment in addition to all radio communication and monitoring systems.

Communication Technology Specialist who ensures the District 8 Intelligent Transportation System equipment is properly functioning 24 hours/7days a week. He/she troubleshoots, maintains, inventories, and budgets the maintenance all ITS equipment and is the district's telecommunications equipment expert.

The incumbent functions with minimal supervision and is granted wide latitude in accomplishing assigned duties referring only the most serious or unusual issues to the Traffic Operations Engineer for resolution. S/He must operate within the guidelines set forth by the Manual of Uniform Traffic Control Devices, the Bureau of Operations Policy and Procedures Manual, the Construction Manual, and the Standard Specifications for Road and Bridge Construction. S/He is constrained by district, departmental, and federal policies as well as plans and specifications. The incumbent is afforded the latitude to make justifiable revisions during a project due to unforeseen conditions.

The incumbent maintains internal contacts with the district Bureau of Project Implementation to ensure that reports, pay items, equipment, and materials are submitted, state inspected, and/or approved, and that information on scheduled roadway restrictions are included in the district's ITS operation; the Bureau of Program Development to ensure that plans are completed to meet letting dates, to obtain traffic data, and to view location studies; and the Bureau of Administration resources (Data Processing) to tap computer and software expertise that is essential to implement many of the component control, database, and information processing needs. The incumbent also maintains frequent contacts with the IDOT ITS coordinator and the Central Bureau of Operations. Outside contacts are maintained with FHWA, MoDOT, EWGCC, BSDA, local governments, consultants, and contractors.

The effectiveness of this position may be measured by the incumbent's application of technical materials; quality and timeliness of ITS component installation, update and maintenance; optimization of the coordination and operation of the various ITS components, and the correct resolution of problems that arise in the field.

PRINCIPAL ACCOUNTABILITIES:

1. Provides in-house expertise needed for the safe, effective, and optimal operation of district complex ITS components.
2. Reviews ITS consultant's work to provide direction for ITS design consultants.
3. Provides liaison with FHWA, MoDOT, EWGCC, and local governments.
4. Provides accurate, credible, timely, and appropriate traffic conditions to the public.
5. Builds and maintains productive working relationships throughout the district and the department.
6. Reviews the Bureau of Operations and the Bureau of Project Implementation lane restrictions to ensure safe and effective deployment.
7. Reviews operation of Traffic Management Center to ensure efficient and productive operation.
8. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees. Performs other duties as required.